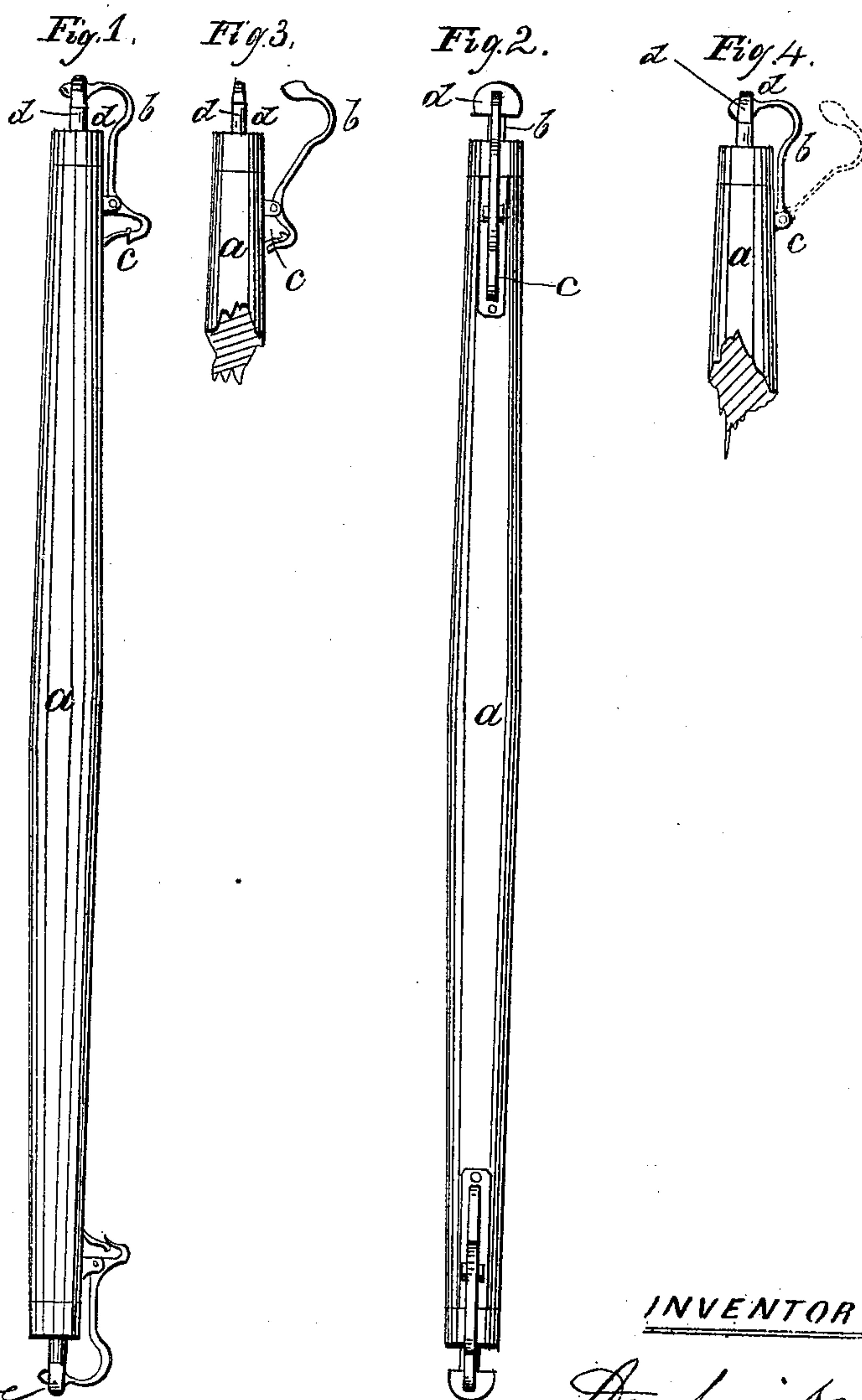


A. J. HANNA.  
Whiffletree Hook.

No. 102,000.

Patented April 19, 1870.



Witnesses  
James Moore  
C. A. Higgins

INVENTOR  
Andrew J. Hanna.

# United States Patent Office.

ANDREW J. HANNA, OF NEW GARDEN TOWNSHIP, PENNSYLVANIA.

*Letters Patent No. 102,000, dated April 19, 1870.*

## IMPROVED SINGLE-TREE.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, ANDREW J. HANNA, of New Garden Township, in the county of Chester and State of Pennsylvania, have invented a new and improved Single-Tree; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, in which—

Figure 1 is a front view of the machine embodying my invention.

Figure 2 is a plane view of the same.

Figure 3 is a view of the appliance, opened.

Figure 4 is a view of the same with a different-shaped spring.

### *Nature and Object of the Invention.*

The nature of my invention consists in providing the ends of the single-tree with a dog operated by a spring and entering the hole in the end of the trace-iron.

The object of my invention is to provide a fastener to the trace-iron so that it can be readily opened and shot out of the way when the trace is being put in place, and readily forced back into the trace-iron, and

when in that position prevent the trace from slipping off.

### *General Description.*

*a* is the single-tree;

*b* is the dog; and

*c*, the spring operating the dog; and

*D* is the trace-iron.

I do not claim, broadly, the use of the spring in forcing the catch or dog into place, as I am aware that a device of this nature has been patented by Luther Humiston, March 19, 1861; a similar one by Burrett Goodrich, rejected July 23, 1866; and also by James T. Minard, also rejected, March 25, 1869.

### *Claim.*

What I claim as my invention is—

The employment of a dog, catch, or trigger in combination with a spring, arranged and operating substantially as and for the purposes set forth.

ANDREW J. HANNA.

Witnesses:

J. S. VALENTINE,

WM. B. WIGGINS.